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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,178	02/01/2002	Ahmed Mokhtari	PHFR 010008	9591

7590 04/03/2003

Corporate Patent Counsel
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EXAMINER

DONG, DALEI

ART UNIT PAPER NUMBER

2875

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/061,178	MOKHTARI, AHMED	
	Examiner	Art Unit	
	Dalei Dong	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/061,178.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claim 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,990,599 to Jackson in view of U.S. Patent No. 5,739,633 to Biro.

Regarding to claims 1-4 and 6, Jackson discloses in Figure 1, "a high-pressure discharge lamp 10. Lamp 10 has a discharge vessel 12 which is enclosed by an outer bulb 14 defining an intervening space 16 therebetween. Discharge vessel 12 contains an ionizable filling such as mercury and metal halides as is well known in the art. Lamp 10 further has a lamp base 18 positioned at an end of outer bulb 14. A first current supply conductor 20 provides an electrical connection between a first terminal 25 in lamp base 18 and internal electrode 22 of discharge vessel 12. Likewise, second current supply conductor 24 provides an electrical connection between a second terminal 21 in lamp base 18 and internal electrode 26 of discharge vessel 12" (column 2, line 52-64)

Jackson further discloses "UV-enhancer 28 for emitting ultraviolet radiation is connected to the first and second current supply conductors 20 and 24 in the intervening space 16 between. An envelope 30 contains an ionizable filling and emits ultraviolet radiation in the band of 253.7 nm or less to assist ignition of the filling in discharge

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vessel 12. An electrode 32 is connected at one end to current supply conductor 20, and an intermediate portion is sealed within envelope 30 of UV-enhancer 28. In a preferred embodiment, envelope 30 is constructed of borosilicate glass. A fill material may consist of an inert gas, such as Ar, in combination with a quantity of mercury, such as a Penning mixture. Such an envelope is disclosed in U.S. Pat. No. 4,818,915 to Zaslavsky et al., which is incorporated by reference herein" (column 2, line 65-67 to column 3, line 1-11).

Jackson further discloses "ultraviolet radiation is produced by the ionizable filling in envelope 30 through capacitive coupling of envelope 30 with a conducting member 34 in accordance with the present invention. To promote such ionization, conducting member 34 is positioned adjacent to envelope 30, and is electrically connected to second current conductor 24 by means of connecting wire 36. An ignition pulse is applied to terminals 21 and 25 by an appropriate ballast to initiate ionization within envelope 30. Insulating member 38 is positioned between conducting member 34 and envelope 30. The size and shape of insulating member 38 is selected to maintain a predetermined distance between conducting member 34 and envelope 30 to promote capacitive coupling while preventing destructive arcing therebetween" (column 3, line 12-25).

Jackson further yet discloses "the UV-enhancer 28 may be assembled as a unit, i.e. insulating member 38 is fixedly positioned between envelope 30 and conducting member 34. The assembled UV-enhancer 38 may be subsequently positioned with respect to the frame of the lamp without the need for critical alignment procedures that are required under the prior art" (column 3, line 26-31).

However, Jackson does not disclose the capsule is made of metal. Biro teaches in Figures 1 and 2, "auxiliary amalgam members 52 are provided within the sealed envelope 12 near the electrodes 30. The auxiliary amalgam members 52 are attached to and supported by one of the lead wires 34 of the electrode support structure 32 adjacent to the electrode 30. Therefore, the auxiliary amalgam members 52 are not directly in the discharge path but are sufficiently near the electrodes 30 such that they are heated by the electrodes during discharge periods. Each amalgam member 52 includes auxiliary amalgam and a wire mesh strip into which the amalgam is embedded. The composition of the auxiliary amalgam is chosen to be compatible with the temperature characteristics of the precise position where it is located in the envelope 12. It is noted that the auxiliary amalgam members 52 could alternatively be of other known types such as, for example, a nickel leaf with the auxiliary amalgam coated on the leaf" (column 4, line 21-36).

Biro also teaches "the purpose of the auxiliary amalgam members 50 is to control the mercury vapor pressure during a warm-up or starting period of the lamp. The auxiliary amalgam members 52 are heated by the electrodes 30 and emit mercury vapor during the starting period to increase the mercury vapor pressure and thereby improve warm-up characteristics of the lamp 10. The auxiliary amalgam members 52 also absorb mercury vapor during non-discharge periods" (column 4, line 37-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured capsule of Jackson utilizing the metal amalgam of Biro in order to improve the control and the efficiency of the enhancer and achieving high light output quickly and maintain high light output during steady-state

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operation without any significant reduction in light output between starting and running conditions.

Regarding to claim 5, Jackson discloses the claimed invention except for the capsule to be embedded into the closed pumping tube. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have rearranged the capsule in a different part of the lamp, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86USPQ 70.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of a discharge lamp.

U.S. Patent No. 5,229,687 to Fowler.

U.S. Patent No. 5,412,288 to Borowiec.

U.S. Patent No. 5,512,799 to Waymouth.

U.S. Patent No. 5,585,693 to Shaffer.

U.S. Patent No. 5,646,483 to Myojo.

U.S. Patent No. 5,675,214 to Geven.

U.S. Patent No. 5,783,912 to Cocoma.

U.S. Patent No. 5,898,265 to Woodward.

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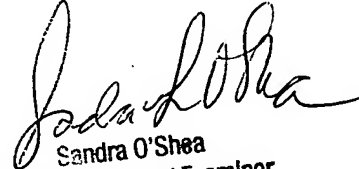
U.S. Patent No. 6,304,029 to De Bot.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (703)308-2870. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703)305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

D.D.
March 25, 2003


Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800